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10/017,420	12/13/2001	Zo-Chun Jen	5540-002	6337

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EXAMINER
AUGHENBAUGH, WALTER

ART UNIT	PAPER NUMBER
1772	6

DATE MAILED: 07/07/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

A96

Office Action Summary	Application No.	Applicant(s)	
	10/017,420	JEN, ZO-CHUN	
	Examiner	Art Unit	
	Walter B Aughenbaugh	1772	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *16 April 2003*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-30* is/are pending in the application.

4a) Of the above claim(s) *1-6 and 14-20* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *7-13 and 21-30* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) ☐ The translation of the foreign language provisional application has been received.

15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____.
4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other:

DETAILED ACTION

Acknowledgement of Applicant's Amendments

1. The amendments made in claims 7 and 12 given on pages 2-3 of Paper 5 have been received and considered by Examiner.

2. New claims 21-30 presented on pages 3-4 of Paper 5 have been received and considered by Examiner.

WITHDRAWN REJECTIONS

3. The 35 U.S.C. 112 rejection to claim 12 has been withdrawn due to Applicant's amendment in Paper 5.

4. The 35 U.S.C. 102 rejection to claims 7, 8 and 11 has been withdrawn due to Applicant's arguments in Paper 5.

5. The 35 U.S.C. 103 rejection to claim 12 has been withdrawn due to Applicant's amendment in Paper 5.

REPEATED REJECTIONS

6. The 35 U.S.C. 112 rejection to claim 7 has been repeated for the reasons previously made of record in paragraph 9 of Paper 3. "Reduced" compared to what[?] as previously requested in paragraph 9 of Paper 3. The rejection with regard to the phrases "an effective amount of barium sulfate" and "an absence of visible haze" is withdrawn due to Applicant's argument in pages 9-10 of Paper 5.

7. The 35 U.S.C. 103(a) rejection to claims 9 and 10 has been repeated for the reasons previously made of record in paragraph 13 of Paper 3, taking into consideration the 35 U.S.C. 103(a) rejection to claim 7 made of record in this Office Action (Paper 6).

8. The 35 U.S.C. 103(a) rejection to claim 13 has been repeated for the reasons previously made of record in paragraph 14 of Paper 3, taking into consideration the 35 U.S.C. 103(a) rejection to claim 7 made of record in this Office Action (Paper 6).

NEW REJECTIONS

Claim Rejections - 35 USC § 103

9. Claims 7, 8 and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Peiffer et al. ('663).

In regard to claims 7 and 8, Peiffer et al. teach a single layer film polyester film which has low haze and a low coefficient of friction (col. 3, lines 28-34 and 38-43). Peiffer et al. teach that the film is made of polyethylene terephthalate or modified polyethylene terephthalate (col. 4, lines 16-35). Peiffer et al. teach that the film contains an antiblocking agent (i.e. a friction reducing additive) (col. 5, lines 5-7). Peiffer et al. teach that barium sulfate is a typical antiblocking agent (col. 5, lines 12-16). Peiffer et al. teach that the processing and reeling performance of the film on high speed machinery is extremely good as supported by the low coefficient of friction of the film of less than 0.5 (col. 8, lines 10-17). Peiffer et al. further teach that the polyester film is chemically pretreated (via the addition of barium sulfate particles) to improve slip (col. 14, lines 43-47). Peiffer et al. teach that the film is transparent (col. 1, lines 5-6 and col. 11, line 41 and col. 12, line 27); therefore the film is characterized by an absence of visible haze. While Peiffer et al. fail to explicitly teach that the film is formed into a bottle, Peiffer et al. teach that it is notoriously well known to produce bottles from polyester (col. 3, lines 13-21). Therefore, one of ordinary skill in the art would have recognized to have formed the polyester of Peiffer et al. into a bottle since Peiffer et al. establish that it is notoriously well

known to produce bottles from polyester. Due to the low coefficient of friction of the polyester film of Peiffer et al., a bottle produced from the polyester would have a low coefficient of friction, and the bottle to bottle friction between bottles produced from the polyester would be accordingly low. Improved slip of the polyester film as taught by Pfeiffer et al. is another indication that bottle to bottle friction between bottles produced from the film would be low. Since the film of Peiffer et al. is characterized by an absence of visible haze, a bottle produced from the polyester of Peiffer et al. would be characterized by an absence of visible haze.

The recitation in claim 7 that "the weight percentage and particle size of barium sulfate are selected" is a method limitation that has been given little patentable weight since the method of forming the bottle is not germane to the issue of patentability of the bottle itself.

In regard to claim 11, Peiffer et al. teach that the barium sulfate particles advantageously have a diameter greater than 1 micron (col. 5, lines 36-44). This teaching overlaps with the claimed range of "about 0.2 to about 1.0 micron".

10. Claims 12 and 21-23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Peiffer et al. ('663) and in further view of Peiffer et al. ('054).

In regard to claim 12, Peiffer et al. ('663) and Peiffer et al. ('054) teach the bottle as discussed in the 35 U.S.C. 103(a) rejection to claim 7 made of record in this Office Action (Paper 6) and in the 35 U.S.C. 103(a) rejection to claims 9 and 10 made of record in paragraph 13 of Paper 3. Furthermore, Peiffer et al. ('663) teach that there is no limit on the particle diameters of the particles used (col. 5, lines 35-44). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have adjusted the size of the barium sulfate particles to achieve the optimum coefficient of friction of the bottle along with

transparency as taught by Peiffer et al. ('054) via routine experimentation depending on the particular desired end user result, since it has been held that discovering an optimum value of a result effective variable involves only routine skill in the art in the absence of unexpected results. *In re Boesch*, 617 F.2d 272, 205 USPQ 215 (CCPA 1980). Futhermore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have added a sufficient amount of barium sulfate to the polyester bottle of Peiffer et al. ('663) such that a barium sulfate concentration of from 0 to 0.08% by weight (about 0.01 wt. % in the case of claim 12) is attained in order to achieve a suitable low coefficient of friction along with transparency as taught by Peiffer et al. ('054) as established in paragraph 13 of Paper 3.

In regard to claim 21, Peiffer et al. ('663) and Peiffer et al. ('054) teach the bottle as discussed above. Claims 21-23 do not introduce any limitations that have not been addressed above. The recitation in claim 21 that "the weight percentage and particle size of barium sulfate are selected" is a method limitation that has been given little patentable weight since the method of forming the bottle is not germane to the issue of patentability of the bottle itself.

11. Claim 24 is rejected under 35 U.S.C. 103(a) as being unpatentable over Peiffer et al. ('663) and in further view of Peiffer et al. ('054), and in further view of Schiavone.

Peiffer et al. ('663) and Peiffer et al. ('054) teach the bottle as discussed above. Peiffer et al. ('663) and Peiffer et al. ('054) fail to teach that the bottle is a two-liter beverage container. Schiavone, however, discloses that polyester resins are widely used to produce two-liter soft drink containers (col. 1, lines 12-20). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have produced the polyester bottle of Peiffer

et al. ('663) in the form of a two-liter soft drink container, as it is notoriously well known to use polyester resins to produce two-liter soft drink containers, as taught by Schiavone.

12. Claims 25-30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Peiffer et al. ('663) and in further view of Peiffer et al. ('054), and in further view of Beck et al.

Peiffer et al. ('663) and Peiffer et al. ('054) teach the bottle as discussed above. Peiffer et al. ('663) and Peiffer et al. ('054) fail to teach that the bottle has a wall thickness of from about 0.12 mm to about 0.65 mm. Beck et al., however, disclose a polyethylene terephthalate (PET) two-liter bottle (col. 2, lines 24-26 and col. 4, lines 10-11) having a wall thickness of 10-13 mils (equivalently 0.25 mm to 0.33 mm) (see first line of data provided in Table 1, col. 9). Therefore, one of ordinary skill in the art would have recognized to have formed the bottle taught by Peiffer et al. ('663) and Peiffer et al. ('054) such that the wall thickness of the bottle is from 0.25 mm to 0.33 mm (a range which falls within the range claimed by Applicant in claims 25, 26 and 30) and such that the bottle is a two-liter beverage container since it is notoriously to form two-liter polyester bottles having a wall thickness of from 0.25 mm to 0.33 mm as taught by Beck et al.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have formed the bottle taught by Peiffer et al. ('663) and Peiffer et al. ('054) such that the wall thickness of the bottle is from 0.25 mm to 0.33 mm (a range which falls within the range claimed by Applicant in claims 25, 26 and 30) and such that the bottle is a two-liter beverage container since it is notoriously to form two-liter polyester bottles having a wall thickness of from 0.25 mm to 0.33 mm as taught by Beck et al.

The recitation in claim 26 that "the weight percentage and particle size of barium sulfate are selected" is a method limitation that has been given little patentable weight since the method of forming the bottle is not germane to the issue of patentability of the bottle itself.

ANSWERS TO APPLICANT'S ARGUMENTS

13. Applicant's arguments on pages 6-8 of Paper 5 regarding the 35 U.S.C. 102(e) rejection of claims 7, 8 and 11 as anticipated by Peiffer et al. ('663) are rendered moot due to the withdrawal of this rejection due to Applicant's arguments in Paper 5.

While Examiner agrees with Applicant that anticipation of claim 7 is not established in Peiffer et al. ('663), one of ordinary skill in the art is amply motivated to form the polyester/barium sulfate mixture taught by Peiffer et al. ('663) into a bottle from the teaching of Peiffer et al. ('663) that bottles are conventionally formed from polyester as made of record in the 35 U.S.C. 103(a) rejection of claim 7 made of record in this Office Action (Paper 6).

Applicant's statement that the Peiffer et al. ('663) film "is only from 4 to 50 μm" is not accurate; Peiffer et al. ('663) states that the total thickness of the novel polyester film can vary within broad limits and depends on the intended application (col. 6, lines 18-22). The "4 to 50" range is merely a preferred range for the particular intended use of Peiffer et al. ('663) (see col. 5, line 63-col. 6, line 22). One of ordinary skill in the art would have recognized to have adjusted the concentration of barium sulfate included in the polyester accordingly when the intended use of the polyester is to form polyester bottles of a thickness that is greater than the preferred films taught by Peiffer et al. ('663).

In response to Applicant's argument that "while Peiffer et al. ('663) might be able to manufacture a low haze film, due to the thinness of the product with a wide variety of additives,

in an amount of up to 5% by weight, and with particle sizes greater than 2 microns, such is simply not the case with bottles" the barium sulfate particle weight relative to the weight percentage and particle sizes claimed are nonetheless taught by either Peiffer et al. ('663) or the combination of Peiffer et al. ('663) and Peiffer et al. ('054) as discussed in the rejections to the appropriate claims above in this Office Action (Paper 6) and in Paper 3. While "one skilled in the art, familiar with polyester film and polyester bottles would not treat them as analogous" as Applicant points out, one skilled in the art familiar with polyester film and polyester bottles are necessarily skilled with polyester films and polyester bottles and it is not seen how this is a relevant argument provided the new 35 U.S.C. 103(a) rejection of claim 7 made of record in this Office Action (Paper 6). Applicant states that Peiffer et al. ('663) "suggest[s] numerous approaches that would be unworkable" without elaborating. This argument is not considered a responsive argument. While SiO_2 is preferred as the additive, barium sulfate is nonetheless taught as a typical antiblocking agent as previously made of record (col. 5, lines 12-16). In response to Applicant's arguments on page 8 of Paper 5 regarding the claimed size range and amount, Examiner restates that the barium sulfate particle weight relative to the weight percentage and particle sizes or size ranges claimed are nonetheless taught by either Peiffer et al. ('663) or the combination of Peiffer et al. ('663) and Peiffer et al. ('054) as discussed in the rejections to the appropriate claims above in this Office Action (Paper 6) and in Paper 3.

In response to Applicant's arguments that the combination of Peiffer et al. ('663) and Peiffer et al. ('054) does not suggest "selection of a particular compound and conditions would produce polyester bottles having reduced bottle-to-bottle friction ad the absense of visible haze", the Peiffer et al. patents do indeed teach the variation of the amount of barium sulfate and the

size of barium sulfate particles in order to achieve a suitable haze level and degree of slip as established in Paper 3 and this Office Action (Paper 6); one of ordinary skill in the art would have recognized to have applied the routine experimentation with the amount of barium sulfate and the size of barium sulfate particles in order to achieve a suitable haze level and degree of slip to bottles formed by the polyester/barium sulfate mixture of Peiffer et al. ('663) or of the combination of Peiffer et al. ('663) and Peiffer et al. ('054), regardless of the thickness of the bottle wall relative to the thickness of the films of preferred thickness of Peiffer et al. ('663).

Conclusion

14. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Walter B Aughenbaugh whose telephone number is 703-305-4511. The examiner can normally be reached on Monday-Friday from 9:00am to 5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Harold Pyon, can be reached on 703-308-4251. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9310.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0661.

wba
06/30/03 WBA

HAROLD PYON
SUPERVISORY PATENT EXAMINER
1772

6/30/03